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EXECUTIVE SUMMARY

After a slow start during the first 6 years of existence of the regional program (1977-1982), the national health emergency preparedness programs are rapidly developing in most Member Countries. However, in spite of their dramatic progress, they remain fragile, underfunded and lack legal or administrative status. Too often they depend on PAHO's support and technical cooperation to implement their activities. Thanks to the unremitting support of the Director and of funding agencies such as the Canadian International Development Agency (CIDA) and the Office of U.S. Foreign Disaster Assistance (OFDA/AID), the regional program continuously adjusts to the changing needs of the countries and is able to respond with unusual flexibility to new opportunities and challenges that present themselves.

Two strategies determine PAHO's regional program priorities and plan of action:

- Institutional strengthening of the health sector: A long-term investment in institutionalization of national health programs with strong interdisciplinary and intersectoral links, intercountry networking and cooperation.

- Development of human resources, on a solid technical basis, and access to training and educational material: Training is the area which is undergoing the most rapid expansion and qualitative changes.

The Subcommittee on Planing and Programming is invited to consider particularly the following policy issues:

- The administrative, budgetary and organizational structure: Is it the most appropriate for an emergency program to facilitate an integrated, rapid and highly flexible response to country needs before and after disasters?

- The intra- and intersectoral reach of the Program: How active should PAHO be in seeking intersectoral (mass media, civil defense, ministries of foreign affairs, communities, other sectors) coordination?

- The imbalance between training needs and resources: How to expand PED's overall support and/or reorient PED's allocation of limited resources?

- PAHO's response during emergency situations: Are the Organization's priorities correct and how can it best meet the complex and urgent needs of the health sector in the immediate aftermath of catastrophes?

1. BACKGROUND

1.1 The Region and its Vulnerability to Disasters

Natural disasters are well-known to the countries in Latin America and the Caribbean. In the last four years alone, earthquakes have struck Chile, Mexico, El Salvador, and Ecuador -- some, like the 1985 quake in Mexico, with such devastating intensity that more than 10,000 persons died and thousands more were left homeless. The crater of the Nevado del Ruiz volcano erupted burying the city of Armero, Colombia and killing 23,000. In 1988, Hurricane Gilbert dealt a severe blow to the Caribbean, leaving hundreds of thousands without shelter in Jamaica before it lashed across Mexico's Yucatan Peninsula and struck the city of Monterrey. Scarcely two months later Hurricane Joan left a trail of destruction from coast to coast in Nicaragua and other Central American countries. Chronic flooding wreaks havoc every year in one country or another. Below is a partial listing of the most severe disasters to strike the Region in the last 20 years.

YEAR	COUNTRY	TYPE OF DISASTER	DEATHS
1970	Peru	Earthquake	66,797
1972	Nicaragua	Earthquake	10,000
1976	Guatemala	Earthquake	23,000
1980	Haiti	Hurricane (Allen)	220
1982	Mexico	Volcanic Eruption	3,000
1985	Mexico	Earthquake	10,000
1985	Colombia	Volcanic Eruption	23,000
1986	El Salvador	Earthquake	1,100
1988	Jamaica	Hurricane (Gilbert)	45
1988	Mexico	Hurricane (Gilbert)	250
1988	Nicaragua and others	Hurricane (Joan)	116

Table 1. Major disasters in Latin America and the Caribbean, 1969-1989

1.2 The Mandate

To prepare the health sector to face the growing burden caused by natural disasters, the Directing Council of the Pan American Health Organization asked the Director to establish "a disaster unit with instructions to define the policy of the Organization, to formulate a plan of action for the various types of disasters, to make an inventory of the human and other resources available, to train the necessary personnel, to prepare and disseminate the appropriate guidelines and manuals, to promote operational studies to meet the needs of the countries in disaster situations, and to ensure that this unit establishes effective coordination with the United Nations Disaster Relief Coordinator, the International Red Cross, and other national and international bodies providing disaster assistance." (DC24.10)

The Organization's most valuable contribution in the aftermath of a disaster may consist of the speedy provision of technical cooperation. In order to provide this, the Directing Council, in 1979, requested the Director to "concentrate the Organization's efforts on the training of health officials in charge of emergency preparedness and the coordination of relief efforts in Member Countries, including in actual emergencies whenever possible." The following year, they recommended "to gradually increase technical cooperation within the Emergency Preparedness Program to assist Member Countries' health sectors in the development of disaster preparedness programs in case of natural or technological disasters of public health importance."

By 1985 the promotional phase of the Program was completed. The Directing Council passed a resolution calling for "Member Governments who have not yet done so to establish, within the Ministry of Health, an emergency preparedness and disaster relief coordination program responsible for continuously updating emergency plans, training health personnel, developing national guidelines and coordinating within and outside the sector."

The Ministers of Health of the Americas, at the XXXIX Directing Council Meeting in 1987, established the Organization's Regional Policy on international health assistance after disasters. The Policy "endorses the recommendations approved at the Meeting on International Health Relief Assistance, held in San Jose, Costa Rica, 10-12 March 1986, particularly those recommendations regarding the need for all potential donors to consult with the health authorities of the affected country before sending health relief assistance and the need to place priority on cooperation between neighboring countries whenever additional medical personnel or resources are needed for disaster management."

1.3 Definitions

Throughout this document, we will discuss disaster preparedness, prevention, mitigation and reduction. Following are accepted working definitions of these terms.

Preparedness may be described as any action designed to minimize loss of life and damages, and to organize and facilitate timely and effective rescue, relief and rehabilitation in cases of disaster. Preparedness is concerned with understanding the threat, forecasting and warning; educating and training officials and the population; establishing organization for and management of disaster situations including preparation of operational plans, training relief groups and earmarking
necessary funds.

Prevention measures are those designed to preclude natural phenomena from causing or resulting in disasters or other emergency situations. Prevention concerns the formulation and implementation of long-range policies and programs to eliminate the occurrence of disasters. Prevention includes legislation and regulatory measures, principally in the fields of physical and urban planning, public works, and building.

Mitigation measures are long-term measures taken to reduce the effects of disasters through alteration of the physical environment, such as flood plain zoning and control, afforestation, land terracing, torrent control, sand dune stabilization and planting windbreaks.

Reduction of disasters can be considered as the ultimate goal and the result of the combined efforts, measures and policies that are undertaken in disaster preparedness, prevention and mitigation.

2. DISASTERS, DISASTER PREPAREDNESS AND DEVELOPMENT

Disasters and the status of health preparedness are closely associated with the development process of the countries. Disasters that are triggered by natural hazards have a complex, ambivalent relationship with development.

- Vulnerability to disasters is linked to underdevelopment. On one hand, without development--human settlements, an infrastructure or industrial facilities--there is little potential for human and material losses following natural disasters. On the other hand, ignorance and poverty increase the vulnerability of underprivileged groups because of poor housing and building techniques, unsafe settlements in high-risk areas or an overstrained infrastructure.

- If disasters constitute a serious setback to development by destroying the infrastructure, burdening the health services and diverting scarce resources to emergency or rehabilitation measures, they may also provide a very special opportunity for genuine reform and long-term improvements in the health system: improving the distribution of services and shifting priorities from huge hospitals to integrated decentralized health services.

- Disaster preparedness is not an isolated effort "just in case a disaster strikes." It is a privileged entry door, a catalyst for improving or developing public and community activities and services that are required in normal times. The humanitarian aspects of disaster preparedness and relief are common to all nations worldwide. Disaster preparedness provides a politically neutral arena for cooperation among ministries, states and countries--a prerequisite for peace and development.

- A country's level of health preparedness for disasters is a reflection of its overall quality of health services and its ability to provide effective services and coverage in normal conditions. The status of preparedness can only be as good as the organization and resources of the health sector allow.

3. OBJECTIVES

The long-term objectives of the Program remain as follows:

- to promote and support the establishment or strengthening of a technical program in the Ministry of Health responsible for ongoing, predisaster planning and coordination of health sector relief activities in case of natural or manmade disasters.

- to promote and support the training of human resources required for a health response to emergency situations.

- to stimulate close cooperation between the Ministry of Health, other health institutions, non-governmental organizations (NGOs), civil defense and the representatives of the international community both before and during emergency situations caused by natural or manmade disasters.

- to contribute to a more effective international response to disasters.

4. ADMINISTRATIVE STRUCTURE OF THE PROGRAM

4.1 The program is an integral part of the Assistant Director's Office. This arrangement has made the horizontal, cross-departmental reach of emergency preparedness activities possible, and access to the Organization's highest level of decision making during emergency situations ensures the rapid and appropriate response of the entire Organization.

4.2 At Headquarters, two medical officers share the managerial and technical responsibility for the Program. One Technical Officer is responsible for the production and dissemination of training material. One Associate Professional Officer maintains liaison with NGOs, and updates the roster of experts and the PED emergency preparedness manual. Technical cooperation to Mexico, the U.S. and Canada is provided directly from Headquarters.

4.3 Technical cooperation (strengthening of institutions and training) is under the responsibility of three senior Subregional Advisors stationed in San Jose, Costa Rica (Central America and Panama); Lima, Peru (South America); and St. John's, Antigua (Pan Caribbean area including Belize, Guyana and Suriname). An additional post is planned in Ecuador.

The Social Security Institute in Costa Rica has generously provided facilities for the PED staff stationed in this country. Additional space for a documentation center will be provided, free of charge, in the National Emergency Commission's (CNE) new building. The CNE recruits local staff who provide administrative support. They are reimbursed by PAHO. The office of the PWR provides administrative supervision and support within its limited resources.

The Project Officer in Antigua has become integrated into the Pan Caribbean Disaster Preparedness and Prevention Project. The Government of Antigua has generously contributed the premises for this Project. PAHO contributes to the direct administrative costs (communications) of the Project on a pro-rated basis. Administrative supervision and limited support is offered by the CPC in Barbados.

In Peru, the PED staff is based in the office of the PWR. The PAHO/WHO office provides administrative support on a cost-basis.

Planning, programming and reporting of activities is the direct responsibility of the senior Subregional Advisors. PWRs are encouraged to direct their requests, correspondence and inquiries directly to the Subregional Advisers. The flexibility and impact of the Program should be credited to the subregional offices.

5. STRATEGIES

The following strategies are adopted to meet the Program's objectives:

5.1 Strengthening of Institutions

Intersectoral coordination: Although PAHO is dedicated to the health sector only, disaster health preparedness often overlaps with or depends on other sectors. Therefore, the Program should stimulate the participation of other key sectors and seek their support and cooperation as needed. These sectors include Civil Defense, and Ministries of Planning, Interior, Defense, Foreign Affairs, etc. A well-prepared health sector will not operate effectively in a vacuum.

Interinstitutional coordination: The Program aims to strengthen the leading position of the Ministry of Health as the head of the health sector. It encourages the establishment of communications across jurisdictional or institutional boundaries, thus promoting greater effectiveness and a more efficient use of resources. Again, a preparedness program in the Ministry of Health which is isolated from those of other health institutions should be viewed as counterproductive and self-defeating.

Political and public awareness: While technical expertise and knowledge are essential to efficiently manage the health response to an emergency situation, disaster relief is also a highly political situation. Often decision-making on health matters is shifted from the technical and managerial level to the highest political level; at times this falls outside the health sector. Thus, to be effective, both the national health preparedness program and the PAHO program must also address public opinion and the highest political level, increasing their awareness and understanding of the health priorities and solutions.

Emphasis on existing resources: Proposed projects for disaster preparedness traditionally emphasized the need to acquire sophisticated equipment (telecommunications, transport, field hospitals, etc.), and to establish large stockpiles and other capital-intensive measures. The Pan American Health Organization places emphasis on better use of existing resources. It will discourage, for example, the set-up of a disaster stockpile of medical supplies in countries where economic conditions cause periodic shortages in health services.

To allocate radio equipment for **exclusive** disaster use is hardly considered justifiable when the need for a radio network is critical in the daily operations of the health services. The approach to disaster preparedness is based on progressive institution building and development of local human resources.

Formulation of disaster plans and disaster preparedness: The essence of disaster preparedness is sometimes considered as the availability of a written, detailed disaster plan. Although written sectoral or institutional plans are necessary, the manner and the process used to formulate these plans are of paramount importance.

In several countries dedicated officials or small task forces have written extensive, scientifically sound plans. As impressive as the final document may be, its actual value as a preparedness **indicator** is negligible in the absence of a broad consultative and educational process during its preparation. Preparedness is more complex and intangible than simply formulating a written document at the central level.

National health preparedness program: To the same extent as maternal and child health care or epidemiologic surveillance, health emergency preparedness is a **permanent** function of the health sector of each country. To effectively carry out this function, the Ministries of Health should:

- establish a preparedness office or unit at an appropriate level within the organizational structure of the Ministry,

- earmark specific human and budgetary resources for this purpose within the organizational structure of the Ministry.

In the absence of such a permanent structure, however modest it may be, some level of preparedness may be achieved by carrying out ad-hoc activities. However, the fragile progress may not survive a change in leadership in the Ministry of Health or a decline in support available from PAHO and other agencies.

5.2 Development of Human Resources

As alluded to before, the response to a sudden-impact disaster rarely follows the neat contingency plan conceived in the quiet environment of an office. The quality of the response depends first on the readiness and qualifications of the first responders, local leaders and the health services in the affected communities and, second on the capacity of the institutional structure at the central level to support and coordinate the response. The better prepared the local health services and communities are, the better the overall national response will be. Developing human resources is an essential component of the PAHO Emergency Preparedness and Disaster Relief Coordination Program. The strategy includes:

- training of trainers and decision makers;
- developing training material;
- encouraging the participation of academic institutions;
- promoting new technical areas;
- fostering technical cooperation between developing countries.

Training of trainers and decision-makers: Because the multiplier effect of the Organization's activities is essential, an intercountry program should concentrate on training the trainers. The Organization's involvement in local training of first responders and health services should be as limited as possible.

In order to achieve a top-to-bottom effect, decision makers must also constitute a key target group in the Organization's strategy for developing human resources.

Development of training and educational material: For the multiplier effect of a program to be successful, newly- trained "agents" must receive extensive technical support in the form of written material and audiovisual aids (slide series, video programs, etc.) to assist them to reproduce the course/workshop in their own environment. The development of training material is the cornerstone of the Emergency Preparedness and Disaster Relief Coordination Program and it provides an indispensable support for training national health personnel.

Participation of academic institutions: To "institutionalize" emergency preparedness in the health sector, a curricula in the academic or technical

institutions of the country's health personnel must progressively include the basic principles of emergency preparedness and disaster management. The systematic exposure of the new generations of health professionals such as doctors, nurses or sanitary engineers, to the basics of emergency preparedness is vital to the stability and the continuity of the program at the national level.

Promotion of new technical areas of knowledge: Disaster preparedness is a technically complex and varied field. Once a national mechanism for the broad transmission of general skills and knowledge has been established, PAHO should discharge this responsibility to the countries and move on to developing and transmitting more specialized skills or advanced knowledge. For example, routine PAHO-sponsored workshops on the basic premises of emergency preparedness should be progressively replaced by training activities in new areas such as on-site management of mass casualties, design of hospitals in earthquake-prone areas, emergencies in modern metropolitan areas, etc. The Organization's limited resources should remain available to promote new ideas and approaches.

Technical cooperation among developing countries: The best strategy for developing key human resources is not through meetings and workshops. It is through on-the-job training and exposure to a broad range of actual problems. Short-term assignments with the Organization as temporary advisors or consultants improves the knowledge and status of selected professionals. PAHO is giving priority to recruiting consultants and temporary advisors from disaster-prone countries in Latin America and the Caribbean in order to develop a reservoir of internationally-recognized expertise in the Region.

Networking: The disaster management capacity of an individual is affected not only by his/her own technical knowledge but also by the ability to access information and knowledge of other experts or institutions. Few countries have had "sufficient" exposure to disasters--natural or technological--to claim expertise in all fields. Therefore, it is essential for disaster coordinators from different countries to network with their counterparts and for countries to develop a small roster of experts. Disaster preparedness does not thrive in a climate of nationalism or regionalism. Intercountry and interregional cooperation, exchange and networking are unavoidable and essential, given the immense variety of possible disaster situations and their relatively rare occurrence in any given place.

5.3 PAHO's Response to Emergency Situations

Type of disaster: The Organization channels its response to actual emergency

situations caused by natural or manmade disasters through the Emergency Preparedness and Disaster Relief Coordination Program. However, unlike the mandate of the Program at WHO/HQs, the response to major outbreaks of communicable diseases does not fall under the responsibility of this Program.

PED acts as the focal point in PAHO for cooperation on emergency health assistance to refugees and displaced persons. The responsibility for resettlement, repatriation and other permanent solutions lies with other PAHO programs.

In brief, the Emergency Preparedness and Disaster Relief Coordination Program of PAHO mobilizes and directs the assistance of the entire Organization in the immediate aftermath of most disasters in the Region. Medium-term rehabilitation and reconstruction are integral parts of the duties of other organizational units.

Assessment of health needs: The Governing Bodies have assigned a high priority to the rapid assessment of emergency health needs, and rightly so, as managing information is the key to effective national health relief and an appropriate international response. Improving the ability of the Organization to assist countries in this task requires:

- appropriate leadership from Headquarters;
- training the Organizations's professional staff in each PWR office or Center;
- rapid mobilization of a multidisciplinary team with logistic and telecommunication support.

Because the objective of assessing health needs is to direct resources--local or international--to priority health needs, the rapid dissemination of reliable and specific information to decision-makers and interested donors is the main function of the Program during emergency situations.

Emergency technical cooperation: The normal need for technical cooperation in medical care, disease surveillance or control, water supply, hospital management and other fields of expertise is dramatically amplified in a crisis situation. The Organization as a whole aims to respond to the new challenge for urgent technical cooperation. This technical cooperation is directed not only to the needs of the traditional national counterparts but also to new partners: governmental or non-governmental organizations responsible for or active in disaster management.

Coordination of international health assistance: Uncoordinated international health assistance to countries affected by disasters can be counterproductive and hamper, rather than help, relief activities. This becomes apparent when needs are anticipated, interpreted or adjusted to match the commodities or services that are available. Thus, the personnel, material and medical supplies which are sent may often respond to the domestic or diplomatic considerations of donors rather than to the justified needs of the disaster-stricken country. Committing visible relief assistance has become increasingly fashionable at the international level and the signs of unhealthy competition among donors are unmistakable. The sensationalistic coverage by some mass media has also put pressure on some competent managers, making them part of the problem rather than the solution.

Although Member Countries with sophisticated health services may, if properly prepared, rely on their own resources, they still have selective needs for highly specialized expertise and/or specific equipment. The interests of the affected country and its health sector are best served when the Organization is allowed to act as a "broker" in those cases when appeals of disaster-stricken countries are technically undefendable or the offers of donors are inappropriate or counterproductive.

The mission of the Pan American Health Organization, along with other U.N. organizations and agencies, is to ensure that genuine health needs are met and international resources are directed to the most productive activities.

Refugees and displaced persons: In Central America, hundreds of thousands of people, the victims of international tension and internal upheavals, have sought or are seeking refuge in neighboring countries which themselves are often in the throws of serious political and economic problems.

The objective of the Organization in regard to short-term cooperation in the emergency are:

- to improve the management capabilities of the health workers of national, international and voluntary agencies, as well as refugees/displaced persons in relation to health care, environmental and nutritional problems;

- to assist in the development of a continuous, standardized information system that will allow each participating country, PAHO/WHO and other recognized agencies to evaluate the health status of refugees and displaced persons;

- to stimulate the exchange of experiences among Ministries of Health, NGOs, and international agencies, in order to provide a mechanism for an institutional memory for future reference.